



A Study on the Knowledge And Safety Perceptions of Urban Women Consumers on Food Additives'

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ABSTRACT

Food additives have important role in food production. They are added to achieve, modify and maintain its technological and sensory quality, or to enhance convenience for the consumers. Educated urban women consumers are the creators of the future of society and their knowledge about food quality and nutrition can affect the food consumption pattern of a society. Individual and societal perceptions of food-related health risks are multidimensional and complex. Social, political, psychological and economic factors interact with technological factors and affect perceptions in complex ways. Consumer perceptions and resulting actions determine the commercial future of any food ingredient. Food safety affects consumer food choice in ways that are different from other dimensions of quality. The background for initiating this study is that urban women consumers generally seem to be critical towards food additives, but there is little knowledge concerning why and how widespread such perceptions are. Apart from the uses of food additives there are health implications which outweighs their uses such as childhood hyperactivity, asthma, allergies, gastric upset, etc. hence there is a need to assess the knowledge and safety perceptions of women on food additives.

KEYWORDS

Introduction: Food additives have been developed over the years to meet the needs of food production, as making foods on a large scale is a very different task to making them in the kitchen at home. Additives are needed to ensure processed food to remain in a good condition throughout its journey from the factory to the shop and to the consumer at home (FAIA, 2013).

Additives perform a variety of useful functions in foods that consumers often take for granted. Some additives could be eliminated if we are willing to grow our own food, harvest and grind it, spend many hours cooking and canning, or accept increased risks of food spoilage. But most consumers today rely on the many technological, aesthetic and convenient benefits that additives provide (IFIC and FDA, 2010).

Aim of the study : The purpose of the study was to assess the knowledge and safety perceptions of urban women consumers on food additives.

Significance of the study: Recognition of consumers' risk perception about food additives, as well as exploration and understanding of the underlying thoughts and the hidden motivations, have an outstanding importance in the appointment of both the effective consumer communication ways and the directions of the producers' product development. For a variety of reasons, some consumers might regard the use of food additives, especially artificial ones, with suspicion; food additives are considered unnatural, unhealthy or even a public health risk.

Objectives of the study

1. To assess the socio-demographic characteristics of the consumers
2. To elicit information on the food purchasing habits of the consumers
3. To analyze the knowledge of consumers about food additives
4. To assess the safety perceptions of consumers about food additives
5. To assess the frequency of consumption of foods containing artificial food additives

Study Design: The study was exploratory and descriptive in

nature.

Description of the questionnaire

A structured questionnaire was used to gather information on the knowledge and safety perceptions of urban women consumers on food additives. The components of the questionnaire were as follows

a. Socio-demographic details

The biographic profile included information about demographic, employment and family details. Questions related to name, age, educational qualification, employment status, occupation, family income, type of family and details about other family members were included in this section. Respondents were simply required to tick an appropriate option in the questionnaire.

b. Food purchasing habits

This section included questions such as frequency of purchase of foods containing food additives and place of purchase of food items. It also included questions about food preparation practices such as frequency of food preparation, reasons for not preparing a meal from fresh / raw ingredients etc.

c. Knowledge on food additives

This section of the questionnaire was used to assess the knowledge of consumers about food additives. Questions on checking the ingredient list while buying commercial foods, frequency of checking ingredients, E numbers, awareness on different food additives, knowledge on natural and artificial food additives, factors influencing their choice, etc., were included.

d. Safety perceptions of food additives

Questions related to safety such as the consumer's perception about the use of food additives, the most unsafe artificial food additive, health implications due to the use and abuse of artificial / synthetic food additives, etc., were asked in this section of the questionnaire.

e. Food frequency questionnaire

The food items listed in the food frequency table were specific foods used in our everyday life containing artificial / synthetic food additives. The various food items included were: bread,

bun, breakfast cereals, noodles, ready-made paratha / chapatis, rice, rice mixes, gravy mixes, soup mixes, chicken 65 masala, pickle, jam, jelly, sauce, canned fruits and vegetables, food colours, MSG (Ajinomoto), chips, biscuits, etc., Options given for the frequency of consumption of such foods included, every day, 2-3 times/week, weekly once, monthly once / twice, rarely and never. The respondents had to choose from the options provided.

Sampling design and sample size: Three hundred urban women between the age group of 25-50 years were selected by Simple random sampling method for the study.

Place of the study: The study was conducted in Chennai city. The participants included women serving in various capacities as teachers, IT professionals, women employed in offices and hospitals and as well as home makers.

Main findings of the study

Food purchasing habits

- A vast majority of about 80 per cent of the women were responsible for shopping and among them 55.4 per cent of them were responsible for shopping every time.
- About 44.7 per cent of the women undertook shopping once a week, 19.7 per cent did it every day, whereas 14.6 purchased their household food items only once in a month.
- Food shopping is dominated by super market from where about 42.7 per cent of the women purchased.
- Results pertaining to the frequency of cooking meals revealed that 51.7 per cent of the women cooked two or more times a day.
- Women who cooked less frequently claimed that they do not have time (25 per cent). About 15 per cent of the respondents said that they usually had ready to eat food or convenience foods.

Women who purchased food / grocery in super markets, who were involved food / grocery shopping at lesser frequencies and who cooked less frequently were inclined to buy more packaged and processed foods, thereby increasing the intake of artificial / synthetic food additives.

Knowledge on food additives

- The habit of referring to food labels was seen in 84.7 per cent of the women respondents and among them 52.4 per cent of them referred to the ingredients list on the food label every time.
- About 73.7 per cent of the surveyed women knew about the usage of artificial/ synthetic ingredients in packaged and processed foods while 26.3 per cent did not.
- Knowledge of E numbers / INS numbers revealed that 62.7 per cent of the women respondents did not know about E numbers.
- Among those who claimed that they were aware about E numbers, 69.6 per cent of them said that they have heard about it but are not sure what do they refer to.
- The respondents had knowledge about colouring agents (48.6 per cent), flavouring agents (44.6 per cent) and preservatives (46.6 per cent) as food additives.
- Identification of food additives on the product label revealed that 51.3 per cent of the women were able to identify the food additives on the food product label.
- About half of the women stated that the source of information on food additives was television (51.3 per cent).
- Knowledge on both natural and artificial food additives was seen in 68.7 per cent of the women participants.
- Opinion about the safer food additive revealed that 80.7 per cent of them stated natural food additive to be the safer food additive.
- The use of food colour (29 per cent) and Monosodium Glutamate (MSG) (23.6 per cent) was common among the respondents.
- It was inferred that the reason for using artificial food additives was to enhance taste (68.6 per cent) as well as colour and appearance (49.3 per cent).

- The factor which influenced the most for the use of artificial food additives was advertisements (46.6 per cent). Women who were less educated had less knowledge about food additives. They did not read the food labels before buying foods, did not know about E number / INS number, they were not able to identify the food additives on the product label and did not know the difference between artificial and natural food additives. Advertisements played a major role in influencing women in purchasing foods containing food additives.

Safety perceptions of food additives

- Most of the women said that artificial/synthetic food additives are not safe.
- Those women who claimed it to be safe felt stated the reason to be food standards and certification (24.3 per cent).
- Majority of the women claimed that Monosodium Glutamate (MSG) (64 per cent) was the most unsafe artificial food additive.
- Around 52 per cent of the women stated that they avoid ready-made dishes and make food from basic ingredients in order to avoid or reduce the use of artificial food additives.
- A vast percentage of women (92.3 per cent) said that artificial/synthetic food additives cause health implications.
- About 39.3 per cent of the respondents claimed that artificial/synthetic food additives cause all the stated health problems (gastro-intestinal disturbances, respiratory problems, skin problems, hyperactivity in kids, cancer and reproductive problems).

It was observed from the study that, even women who had less knowledge about food additives were very sceptical about the safety of artificial/synthetic food additives. Many claimed that artificial food additives lead to various health implications.

Frequency of use of foods containing artificial / synthetic food additives

- From the food frequency questionnaire pertaining to the consumption of foods containing artificial/synthetic food additives, it was evident that, bread consumption among most of the respondents seemed to be at least once in a week (40 per cent), whereas consumption of bun was rare.
- Consumption of breakfast cereals was rare (42 per cent), while instant noodles intake was at least once in a week (27 per cent).
- Synthetic food colours and MSG use was occasional.
- Jam, jelly and marmalade were consumed rarely.
- Biscuits (42 per cent) and health drinks (50.7 per cent) were consumed almost every day.

Conclusion

Women's health status as well as their social status has a great impact on the health of their families. There is a correlation between women's level of awareness on nutrition and health on the future generation. Eventually, this determines the intellectual and physical potential of our society. The findings of this study showed that women with fundamental knowledge on food additives had more awareness in choosing foods they prefer to consume than others who lacked this knowledge. It also suggests that knowledge of regulation, trust in regulators, preference for natural products, risk and benefit perceptions are all important variables related to the acceptance of food additives.

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